

II. CLAIM AMENDMENTS

1. (Previously Presented) A method for wireless data communication between a wireless device having means for short-range data communication, and an electronic device, the method comprising:

mounting a data communication device having means for short-range radio frequency wireless data communication in a general purpose expansion memory location of the electronic device;

activating a short-range radio frequency wireless data communication link between the wireless device and the data communication device; and

transmitting data between the data communication device and the wireless device so that the data communication device operates as an ordinary expansion memory from the view point of the electronic device.

2. (Previously Presented) A method according to claim 1, wherein in order to enable the data transmission from the electronic device to the wireless device the following method steps are performed after the installation of the data communication device and before the activation of the data communication link:

inputting data to the electronic device; and

processing the data in the data communication device installed in an expansion memory location.

3. (Previously Presented) A method according to claim 2, wherein the data processing in the data communication device is made by instructions from the electronic device.

4. (Previously Presented) A method according to claim 1, wherein the data communication between the data communication device and the wireless device is made over a low power radio frequency (LPRF) link.

5. (Previously Presented) A method according to claim 1, wherein the data communication between the data communication device and the wireless device is made on the basis of instructions given by the wireless device.

6. (Previously Presented) A method for wireless data communication between a wireless device having means for short-range data communication, and an electronic device, the method comprising:

mounting a data communication device having means for short-range wireless data communication in a general purpose expansion memory location of the electronic device;

activating a short-range wireless data communication link between the wireless device and the data communication device; and

transmitting data between the data communication device and the wireless device so that the data communication device operates as an ordinary expansion memory from the view point of the electronic device,

wherein the short-range wireless data communication link between the data communication device and the wireless device is made automatically on the basis of the logic of the data communication device so that the short-range wireless data communication link is activated by the storage of data.

7. (Previously Presented) A method for wireless data communication between a wireless device having means for short-range data communication, and an electronic device, the method comprising:

mounting a data communication device having means for short-range wireless data communication in a general purpose expansion memory location of the electronic device;

activating a short-range wireless data communication link between the wireless device and the data communication device; and

transmitting data between the data communication device and the wireless device so that the data communication device operates as an ordinary expansion memory from the view point of the electronic device,

wherein in order to enable the data transmission from the electronic device to the wireless device the following method steps are performed after the installation of the data communication device and before the activation of the data communication link:

inputting data to the electronic device; and

processing the data in the data communication device installed in an expansion memory location, wherein the input data is a picture reflected as light through the objective of a camera.

8. (Previously Presented) A data communications device for short range radio frequency wireless data communication between a wireless device, which has means for a short-range data link, and an electronic device, the data communication device comprising:

a controller connectable to a general purpose interface of an expansion memory location of the electronic device, for controlling the operation of the data communication device,

a short-range radio frequency wireless data communication unit and a short range radio frequency antenna for data communication; and

a memory for storing a communicated data,

wherein said communication device for wireless data communication is arranged to mount into a general purpose expansion memory location of the electronic device, said communication device being arranged to operate as an ordinary expansion memory from the viewpoint of the electronic device.

9. (Previously Presented) A data communication device for short range radio frequency wireless data communication between a wireless device, which has means for a short-range data link, and an electronic device, the data communication device comprising:

a controller connectable to a general purpose interface of an expansion memory location of the electronic device, for controlling the operation of the data communication device,

a short-range radio frequency wireless data communication unit and a short range radio frequency antenna for data communication; and

a memory for storing a communicated data,

wherein the controller of the data communication device comprises:

a serial to parallel converter for converting parallel mode information of the memory into serial mode used by the short-range data communication unit, and correspondingly the serial mode information into the parallel mode;

a splitter for connecting a parallel mode write and read connection of the memory alternatively to the interface of the expansion memory location of the electronic device or to the serial to parallel converter for a short-range data communication link; and

a microcontroller for controlling the serial to parallel converter and the splitter.

10. (Previously Presented) A data communication device according to claim 8, wherein the short-range data communication unit is an LPRF unit.

11. (Previously Presented) A data communication device for wireless data communication between a wireless device, which has

means for a short-range data link, and an electronic device, the data communication device comprising:

a controller connectable to a general purpose interface of an expansion memory location of the electronic device, for controlling the operation of the data communication device;

a short-range LPRF wireless data communication unit and a short range radio frequency antenna for data communication;

a memory for storing the communicated data; and

means for supplying a busy signal to the electronic device when the memory is processed by the radio link, and a busy signal to the LPRF unit when the memory is processed by the electronic device,

wherein said communication device for wireless data communication is arranged to mount into a general purpose expansion memory location of the electronic device, said communication device being arranged to operate as an ordinary expansion memory from the viewpoint of the electronic device.

12. (Currently Amended) A data communication device for wireless data communication between a wireless device, which has means for a short-range data link, and an electronic device, the data communication device comprising:

a controller connectable to a general purpose interface of an expansion memory location of the electronic device, for controlling the operation of the data communication device;

a short-range LPRF wireless data communication unit and a short range radio frequency antenna for data communication;

a memory for storing the communicated data; and

means for giving to the a microcontroller an operation enable signal enabling the operation of the data communication device when the memory is processed by the electronic device, and a busy signal when the LPRF unit is occupied for data communication,

wherein said communication device for wireless data communication is arranged to mount into a general purpose expansion memory location of the electronic device, said communication device being arranged to operate as an ordinary expansion memory from the viewpoint of the electronic device.

13. (Previously Presented) An electronic device comprising:

a first memory;

a general purpose expansion mount for a second ordinary expansion memory; and

circuitry for preventing another process from changing the first and second memories during an LPRF-data transmission.

14. (Previously Presented) The electronic device of claim 13, comprising a communication device mounted into the general purpose expansion mount, the data communication device including:

a controller connectable to a general purpose interface of the expansion mount, for controlling the operation of the data communication device;

a short-range radio frequency wireless data communication unit and a short range radio frequency antenna for data communication; and

at least a portion of the second memory for storing a communicated data,

wherein the data communication device is arranged to operate as the second ordinary expansion memory from the viewpoint of the electronic device.

15. (Previously Presented) An electronic device according to claim 13, wherein the circuitry comprises a busy-signal means.

16. (Previously Presented) A data communications device for short range radio frequency wireless data communication between a wireless device and an electronic device, mounted in a general purpose expansion memory location of the electronic device, the data communication device comprising:

a controller connectable to a general purpose interface of the general purpose expansion memory location, for controlling the operation of the data communication device;

a short-range radio frequency wireless data communication unit and a short range radio frequency antenna for data communication;

a memory for storing a communicated data; and

circuitry for preventing another process from changing the memory during an LPRF-data transmission,

wherein the data communication device is arranged to operate as an ordinary expansion memory from the viewpoint of the electronic device.

17. (Previously Presented) The data communications device of claim 16, wherein the circuitry comprises a busy-signal means.